

Appl. No. : 10/764,986
Filed : January 26, 2004

REMARKS

The foregoing amendments and the following remarks are responsive to the May 31, 2007 Office Action. Claims 1-4, 7, 8, 11, 12, and 16-18 are amended, Claims 5, 6, 13-15, 19, and 20 remain as originally filed, and Claims 9, 10, and 21-23 are cancelled without prejudice. Thus, Claims 1-8 and 11-20 are presented for further consideration. Please enter the amendments and reconsider the claims in view of the following remarks.

Comments on Amendments to the Specification

As described herein, Applicants have amended paragraph [0039] to include information from paragraph [0069] of U.S. Provisional Patent Application No. 60/537,190, filed January 19, 2004, from which the present application claims priority under 35 U.S.C. § 119(e). When the present application was originally filed, this provisional application was incorporated by reference in its entirety in the present application in accordance with 37 C.F.R. § 1.57. Applicants submit that the material being inserted by way of amendment of paragraph [0039] of the present application is a portion of the material previously incorporated by reference and the amendment contains no new matter.

Response to Rejection of Claims 1-8 and 11-20 Under 35 U.S.C. § 102(b)

In the May 31, 2007 Office Action, the Examiner rejects Claims 1-8 and 11-20 under 35 U.S.C. § 102(b) as being anticipated by PCT Publication No. WO99/62599 of Oron ("Oron").

Claim 1

Applicant has amended Claim 1 to recite (emphasis added):

1. A method for enhancing neurologic function in a subject, said method comprising **noninvasively delivering a neurologic function enhancing effective amount of light energy having a wavelength in the visible to near-infrared wavelength range and a predetermined power density** to the brain of the subject, wherein noninvasively delivering the neurologic function enhancing effective amount of light energy comprises transmitting light energy through the scalp and the skull to the brain, **wherein the predetermined power density is at least about 0.01 mW/cm² at a depth of approximately 2 centimeters below the dura.**

Applicants submit that amended Claim 1 includes features not disclosed or suggested by Oron. For example, Oron does not disclose or suggest "noninvasively delivering ... light energy having ... a predetermined power density ... at least about 0.01 mW/cm² at a depth of approximately 2 centimeters below the dura," as recited by amended Claim 1.

Appl. No. : 10/764,986
Filed : January 26, 2004

In addition, as explained in the "Declaration of Luis De Taboada Pursuant to 37 C.F.R. § 1.132" (the "Declaration"), submitted herewith, persons skilled in the art would understand from the disclosure of Oron that Oron does not disclose or suggest such a feature. The Declaration further explains that in view of the teachings of the prior art at the time of the invention, persons skilled in the art at the time of the invention (i) would not expect that application of the power densities disclosed by Oron at the surface of the brain would result in a power density of at least about 0.01 mW/cm^2 at a depth of 2 centimeters below the dura, and (ii) would consider that delivery of sufficient power densities at the surface of the brain to achieve a power density at least about 0.01 mW/cm^2 at a depth of approximately 2 centimeters below the dura would cause significant damage of the patient's brain and would not be practical for treatment. Therefore, Applicants submit that amended Claim 1 is patentably distinguished over Oron. Applicants respectfully request the Examiner withdraw the rejection and pass Claim 1 to allowance.

Claim 2

Applicants have amended Claim 2 to recite (emphasis added):

2. A method for preventing heat stroke, reducing the severity of heat stroke, reducing the incidence of future heat stroke, and/or reducing the likelihood of onset heat stroke in a subject, said method comprising **noninvasively delivering light energy having** a wavelength in the visible to near-infrared wavelength range and **a predetermined power density** through the scalp and the skull to the brain of a subject, wherein the wavelength, power density and amount of the light energy delivered are sufficient to prevent heat stroke, reduce the severity of heat stroke, reduce the incidence of future heat stroke, and/or reduce the likelihood of onset heat stroke in the subject, **wherein the predetermined power density is at least about 0.01 mW/cm^2 at a depth of approximately 2 centimeters below the dura.**

Applicants submit that amended Claim 2 includes features not disclosed or suggested by Oron. For example, for reasons similar to those discussed above with regard to Claim 1, Oron does not disclose or suggest "noninvasively delivering light energy having ... a predetermined power density ... at least about 0.01 mW/cm^2 at a depth of approximately 2 centimeters below the dura," as recited by amended Claim 2. Therefore, Applicants submit that amended Claim 2 is patentably distinguished over Oron. Applicants respectfully request the Examiner withdraw the rejection and pass Claim 2 to allowance.

Appl. No. : 10/764,986
Filed : January 26, 2004

Claims 3-8 and 11-15

Each of Claims 3-8 and 11-15 depends either directly or indirectly from amended Claim 1, amended Claim 2, or both amended Claims 1 and 2, and each of Claims 3-8 and 11-15 includes additional features of particular utility. Therefore, for at least the reasons stated above with regard to amended Claims 1 and 2, Applicant submits that Claims 3-8 and 11-15 are patentably distinguished over Oron. Applicant respectfully requests the Examiner withdraw the rejection and pass Claims 3-8 and 11-15 to allowance.

Claim 16

Applicants have amended Claim 16 to recite (emphasis added):

16. A method of increasing neurologic function by increasing the production of ATP by neurons, comprising:

noninvasively irradiating neurons with light energy having a wavelength in the near infrared to visible portion of the electromagnetic spectrum for at least about 1 second;

wherein the power density of said light energy at the neurons is at least about 0.01 mW/cm² at a depth of approximately 2 centimeters below the dura, whereby the ATP production of neurons is increased.

Applicants submit that amended Claim 16 includes features not disclosed or suggested by Oron. For example, for at least reasons similar to those discussed above with regard to Claim 1, Oron does not disclose or suggest “noninvasively irradiating neurons with light energy ... wherein the power density of said light energy at the neurons is at least about 0.01 mW/cm² at a depth of approximately 2 centimeters below the dura,” as recited by amended Claim 16. Therefore, Applicants submit that amended Claim 16 is patentably distinguished over Oron. Applicants respectfully request the Examiner withdraw the rejection and pass Claim 16 to allowance.

Claims 17-20

Each of Claims 17-20 depends either directly or indirectly from amended Claim 16, and each of Claims 17-20 includes additional features of particular utility. Therefore, for at least the reasons stated above with regard to amended Claim 16, Applicants submit that Claims 17-20 are patentably distinguished over Oron. Applicants respectfully request the Examiner withdraw the rejection and pass Claims 17-20 to allowance.

Appl. No. : 10/764,986
Filed : January 26, 2004

Response to Rejection of Claims 9 and 10 Under 35 U.S.C. § 103(a)

In the May 31, 2007 Office Action, the Examiner rejects Claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Oron. Applicants have cancelled Claims 9 and 10 without prejudice, reserving the right to pursue these claims through continuation practice.

Response to Provisional Rejection of Claims 1-20 for Obviousness-Type Double Patenting

In the May 31, 2007 Office Action, the Examiner provisionally rejects Claims 1-20 for obviousness-type double patenting over Claims 1, 6, 7, 9, and 16 of copending U.S. Patent Application No. 11/038,770 filed January 19, 2005. Applicants respectively traverse the rejection, however, to expedite issuance of the rejected claims, Applicants are submitting herewith a Terminal Disclaimer in accordance with 37 C.F.R. §1.321, obviating the rejection. Applicants respectfully request the Examiner withdraw the rejection and pass Claims 1-8 and 11-20 to allowance.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

Co-Pending Applications of Assignee

Applicants wish to draw to the Examiner's attention to the following co-pending applications of the present application's assignee.

Serial Number	Atty Docket No.	Title	Filed
11/038,770	ACULSR.050A	Method for Treatment of Depression	January 19, 2005
11/766,037	ACULSR.050C1	Method of Treating or Preventing Depression	June 20, 2007
10/682,379	ACULSR.005CP1	Device and Method for Providing Phototherapy to the Brain	October 9, 2003

Appl. No. : 10/764,986
Filed : January 26, 2004

11/482,220	ACULSR.005CP1C1	Device and Method for Providing Phototherapy to the Brain	July 7, 2006
10/938,423	ACULSR.5CP1CP2	Device and Method for Providing Phototherapy to the Brain	September 10, 2004
11/844,205	ACULSR.055A	Low Level Light Therapy For Enhancement of Neurologic Function of a Patient Affected by Parkinson's Disease	August 23, 2007

Summary

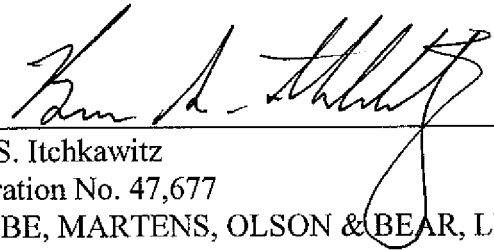
For at least the foregoing reasons, Applicants submit that Claims 1-8 and 11-20 are in condition for allowance, and Applicants respectfully request such action.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

Dated: 10/30/07

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